

(3)

1/5/86 (Item-5-from-544- 352)
DIALOG(R) File 352:Derwent WPI
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001419806

WPI Acc No: 1975-69529W/197542

Latex foams from org. polysiloxanes and sulphosuccinic acid derivs -
useful as carpet backings

Patent Assignee: JAPAN SYNTHETIC RUBBER CO LTD (JAPS)

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 50022870	A	19750311				197542 8
JP 81028935	B	19810704				198131

Priority Applications (No Type Date): JP 7373195 A 19730628

Abstract (Basic): JP 50022870 A

Polymer latexes contg. org. polysiloxanes and derivs. of
sulphosuccinic acid were foamed and coagulated at 70-120 degrees.Thus 100 pts. butadiene-styrene latex (60% solids) was mixed with 1
ptd. org. polysiloxane and 1 pt. di-Na cotyl sulphosuccinate and used
to prepare a foam.

Title Terms: LATEX; FOAM; ACID; DERIVATIVE; USEFUL; CARPET; BACKING

Derwent Class: A12; A26; A82; A94; E19; F06

International Patent Class (Additional): C07C-143/12; C08J-009/30

File Segment: CPI

(4)

1/5/5 (Item 5 from file: 352)
DIALOG(R) File 352: Derwent WP1
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002000249

WP1 Acc No: 1976-13264A/197807

Durable pressure sensitive resistor - having good linear pressure versus electrical resistance, used for switching elements and pressure detectors

Patent Assignee: JAPAN SYNTHETIC RUBBER CO LTD (JAPS)

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 53000896	A	19780107				197807 8
JP 83007001	B	19830208				198309

Priority Applications (No Type Date): JP 7675077 A 19760625

Abstract (Basic): JP 53000896 A

A pressure sensitive resistor comprising high molecular elastic material e.g. silicone rubber, conts. 0.5-30 wt. % polysiloxane oil. 10-50 vol. % conductive metal particles of grain size of 0.1-100 mu m dispersed in the elastic material.

The conductive metal particles are pref. surface-treated with a silane coupling agent of formula YRSiX3 (where X is hydrosis gps. bonded to Si atoms; Y is various organic functional gps. and R is organic gps.)

Title Terms: DURABLE: PRESSURE: SENSITIVE: RESISTOR: LINEAR: PRESSURE:
VERSUS: ELECTRIC: RESISTANCE: SWITCH: ELEMENT: PRESSURE: DETECT
Derwent Class: A25: A26: A85: L03: V01: X12
International Patent Class (Additional): C08L-083/04: C08L-101/00:
H01B-001/00: H01C-007/00: H01C-010/10
File Segment: C01: E01

(6)

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 58-003249
 (43)Date of publication of application : 10.01.1983

(51)Int.Cl.

H01L 21/88
 H01L 21/312

(21)Application number : 56-100511

(71)Applicant : FUJITSU LTD

(22)Date of filing : 30.06.1981

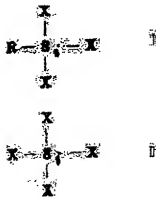
(72)Inventor : TAKEDA SHIRO
 KITAKOJI TOSHISUKE
 MURAKAWA KYOHEI
 NAKAJIMA MINORU

(54) MULTILAYER STRUCTURE AND MANUFACTURE THEREOF

(57)Abstract:

PURPOSE: To obtain an insulator layer having excellently flat surface and high reliability by forming the interlayer insulator layer of multilayer wires of an insulating material hardened under the specific conditions from a polymer of specific silicon monomer.

CONSTITUTION: An interlayer insulator layer of multilayer wires is composed of a mixture of polymer of monomer represented by the formulæland II, where R signifies methyl, ethyl, vinyl or phenyl group, and X signifies a halogen, hydroxy or ethoxy group, or an insulating material hardened at a temperature higher than 450° C in an oxidative atmosphere including oxygen from copolymer of both the monomers. For example, a solution mixed with a mixture of methylphenylpolysilsesquioxane and polydialkoxysilane and methylcellosolve acetate is coated on a metallic wiring layer to form a resin film, which is heated at approx. 500° C in the air, thereby forming an inorganic insulator layer.



LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's

Searching PAJ

2/2 ページ

[decision of rejection]

[Date of extinction of right]

Copyright (C): 1998,2003 Japan Patent Office

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 58-066335

(43)Date of publication of application : 20.04.1983

(51)Int.Cl.

H01L 21/312
H01L 21/84
H01L 27/12
H01L 29/78
// G11C 11/14

(21)Application number : 56-165059

(71)Applicant : FUJITSU LTD

(22)Date of filing : 16.10.1981

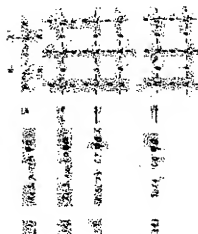
(72)Inventor : TAKEDA SHIRO
MURAKAWA KYOHEI
KITAKOJI TOSHISUKE
NAKAJIMA MINORU
OKUYAMA HIROFUMI

(54) INTEGRATED CIRCUIT

(57)Abstract

PURPOSE: To form a flat insulation layer having high insulation resistance between electronic elements, by a method wherein Si resin including sil-sesquioxane of 40% or more is treated at a temperature of 450° C or more within the atmosphere including O₂.

CONSTITUTION: In silicon resin having organic group R and functional group X, T unit (sil-sesquioxane) of 60% in which X is OX group, Q unit (SiX₄) of 30% and D unit (R₂SiX₂) of 10% are added, thereby resin is obtained in excellent heat-resistant, anti-abrasion and adhesive property. If this is treated at high temperature in O₂, the organic group R in the Si resin is cracked into CO₂ and bridging polymerization reaction progresses thereby SiO₂ which is flat and has high insulation resistance is obtained. If SiO₂ is obtained by heating at one process, SiC may be produced. At roughened surface on the substrate, formation of the resin layer and decomposition thereof are repeated and good insulation layer is effectively formed. Thereby IC circuit can be formed in three dimensions.



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[Date of request for examination]

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[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

Searching PAJ

2/2 ページ

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

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2/5/2 (Item 2 from file: 352)
 DIALOG(R)Pile 352 Derwent WP1
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00446614

WP1 Acc No: 1985-273492/198544

XRAW Acc No: C85-118691

High solids coating compen. for paper - comprises calcium carbonate-based pigment and latex contg. nonionic surfactant and organo polysiloxane

Patent Assignee: JAPAN SYNTHETIC RUBBER CO LTD (JAPS)

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 60185892	A	19850921	JP 8441366	A	19840306	198544 8
JP 92009239	B	19920219				199211

Priority Applications (No Type Date): JP 8441366 A 19840306

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

JP 60185892 A 10

JP 92009239 B 8

Abstract (Basic): JP 60185892 A

Compen. comprises (a) pigment contg. g up to 50 wt.% of CaCO₃ and (b) latex contg. 0.5-5 wt.% per latex solid of nonionic surfactant of clouding point at least 90 deg.C and 0.5-5 wt.% of organo polysiloxane of clouding point at least 60 deg.C.

Pref. nonionic surfactant is e.g. polyoxyethylenealkyllylether, polyoxyethylenealkylphenylether, polyoxyethylenealkylamino, fatty acid glyceride, etc. Organopolysiloxane is cpd. (I)-(II).

USE/ADVANTAGE - The compen. has improved coating runability and provides coated paper with excellent printability, though it contains large amt. of CaCO₃ and the compen. has high solids.

Title Terms: HIGH: SOLID: COATING: COMPOSITION: PAPER: COMPRISE: CALCIUM: CARBONATE: BASED: PIGMENT: LATEX: CONTAIN: NONIONIC: SURFACTANT: ORGANO: POLYSILOXANE

Derwent Class: A82: F09: G02

International Patent Class (Additional): D21H-001/28: D21H-019/56

File Segment: CP1

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3/5/5 (Item 5 from file: 352)
DIALOG(R) File 352: Derwent WPI
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001419806

WPI Acc No: 1975-69529W/197542

Latex foams from org. polysiloxanes and sulphosuccinic acid derivs -
useful as carpet backings

Patent Assignee: JAPAN SYNTHETIC RUBBER CO LTD (JAPS)

Number of Countries: 001 Number of Patents: 002

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Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 50022870	A	19750311				197542 B
JP 81028935	B	19810704				198131

Priority Applications (No Type Date): JP 7373195 A 19730628

Abstract (Basic): JP 50022870 A

Polymer latexes contg. org. polysiloxanes and derivs. of
sulphosuccinic acid were foamed and coagulated at 70-120 degrees.
Thus 100 pts. butadiene-styrene latex (60% solids) was mixed with 1
ptd. org. polysiloxane and 1 pt. di-Na cetyl sulphosuccinate and used
to prepare a foam.

Title Terms: LATEX; FOAM; ACID; DERIVATIVE; USEFUL; CARPET; BACKING

Derwent Class: A12; A26; A82; A94; E19; F05

International Patent Class (Additional): C07C-143/12; C08J-009/30

File Segment: CP1

(1b)

3/5/4 (Item 4 from file: 352)
 DIALOG(R)File 352:Derwent WPI
 (c) 2005 Thomson Derwent. All rts. reserv.

002000249

WPI Acc No: 1978-132644/197807

Durable pressure sensitive resistor - having good linear pressure versus electrical resistance, used for switching elements and pressure detectors
 Patent Assignee: JAPAN SYNTHETIC RUBBER CO LTD (JAPS)
 Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 53000896	A	19780107				197807 B
JP 83007001	B	19830208				198309

Priority Applications (No Type Date): JP 7675077 A 19760625

Abstract (Basic): JP 53000896 A

A pressure sensitive resistor comprising high molecular elastic material e.g. silicone rubber, conts. 0.5-30 wt. % polysiloxane oil, 10-50 vol. % conductive metal particles of grain size of 0.1-100 μ m dispersed in the elastic material.

The conductive metal particles are pref. surface-treated with a silane coupling agent of formula YRSiX₃ (Where X is hydroxy gpe. bonded to Si atoms; Y is various organic functional gpe. and R is organic gpe.).

Title Terms: DURABLE: PRESSURE: SENSITIVE: RESISTOR: LINEAR: PRESSURE:
 VERSUS: ELECTRIC: RESISTANCE: SWITCH: ELEMENT: PRESSURE: DETECT
 Derwent Class: A25: A26: A85: L03: V01: X12
 International Patent Class (Additional): C08L-083/04: C08L-101/00:
 H01B-001/00: H01C-007/00: H01D-010/10
 File Segment: CPI: EPI

(17)

4/5/1 (Item 1 from file: 352)
 DIALOG(R) File 352-Derwent WPI
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003492338

WPI Acc No: 1982-40301E/198220

Insulating resin coated layer of polysilsesquioxane - applied to
 semiconductive substrate as soln. in organic solvent and cured with ion
 beam radiation

Patent Assignee: FUJITSU LTD (FUJIT)

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 57059672	A	19820410	JP 80133765	A	19800926	198220 B
JP 84014263	B	19840403				198417

Priority Applications (No Type Date): JP 80133765 A 19800926

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

JP 57059672 A 3

Abstract (Basic): JP 57059672 A

The method comprises dissolving polysilsesquioxane in a solvent to
 obtain a soln. thereof, coating the soln. on a predetermined region of
 a material, drying it thereon to form a coated layer consisting of
 polysilsesquioxane, and applying an ion beam to the coated layer to
 form an insulating resin coated layer consisting of polycyrsesquioxane
 on the material.

In an example, dimethyl silsesquioxane was dissolved in a mixed
 solvent of toluene and isophorone to obtain a soln. thereof. The soln.
 was coated on a silicon wafer, and heated at 100 deg. C for 1 hr. in an
 atmos. of N₂ to form a coated layer thereon. A proton beam of 100 Kev
 was applied to the coated layer at a rate of 1×10^{14} proton/cm²
 to form an insulating resin coated layer high in mechanical strength.

Title Terms: INSULATE; RESIN; COATING; LAYER; POLY; SILSESQUOXANE; APPLY;
 SEMICONDUCTOR; SUBSTRATE; SOLUTION; ORGANIC; SOLVENT; CURE; ION; BEAM;
 RADIATE

Derwent Class: A26; A85; L03; P42

International Patent Class (Additional): B05D-003/06; B05D-007/24;

C09D-003/82

File Segment: CPI; EngPI

(18)

4/5/3 (Item 3 from file: 352)
DIALOG(R) File 352:Derwent WPI
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002261278

WPI Acc No: 1979-60480B/197933

Heat curable silicone resin compsn. - gives heat resistant weatherproof
coatings and is prepd. from block copolymer of methyl polysiloxane

Patent Assignee: JAPAN SYNTHETIC RUBBER CO LTD (JAPS)

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 54083957	A	19790704				197933 B
JP 64050182	B	19841205				198502

Priority Applications (No Type Date): JP 77150604 A 19771216: JP 7928222 A
19741127

Abstract (Basic): JP 54083957 A

The compsn. comprises (a) a silicone block polymer which is
synthesized from methyl polysiloxane with number average mol.wt.
9000-10000 of formula (I), and Cl $(\text{CH}_3)_2\text{SiO}-m-(\text{CH}_2)_2\text{SiCl}$ (where m is
0-100), (b) a curing catalyst and opt. (c) inorganic filler and/or heat
resistant pigment.

When the compsn. is used as a paint, it is coated on steel sheet
and heated at 140-160 degrees C for 20-30 mins., to give a cured film
with excellent close sticking property, weathering property and heat
resistance.

Specifically the compsn. comprises 100 pts.wt. (a), 0.3-2 pts.wt.
(b) and <=60 pts.wt. (c). Component (a) is obtd. by adding $(\text{CH}_2)_2\text{-SiCl}_2$
during condensn. reaction of methyl polysiloxane. Thus obtd. polymer
has good heat resistance and high ignition residue and the obtd. cured
prod. has flexibility.

Title Terms: HEAT: CURE: SILICONE: RESIN: COMPOSITION: HEAT: RESISTANCE:

WEATHER: COATING: PREPARATION: BLOCK: COPOLYMER: METHYL: POLYSILOXANE

Derwent Class: A26: G02

International Patent Class (Additional): C08J-005/24: C08L-083/04:

C09D-003/82

File Segment: CP1

(19)

4/5/4 (Item 4 from file: 352)
 DIALOG(R) File 352: Derwent WPI
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002258004

WPI Acc No: 1979-57206B/197931

Abrasive for cleaning electrophotographic light sensitive body -
 comprises finely powdered polymethylsilsequioxane in an aq. soln. contg.
 alkaline earth hydroxide or alkali carbonate

Patent Assignee: FUJI ELECTRIC MFG CO LTD (FJIE)

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 54079037	A	19790623				197931 B
JP 84052678	B	19841219				198504

Priority Applications (No Type Date): JP 77145853 A 19771205

Abstract (Basic): JP 54079037 A

Abrasives used for cleaning the surface of electrophotographic light sensitive body, comprise finely pulverised polymethylsilsequioxane (I) prod. by hydrolytic condensation of methyltrialkoxysilane or partial hydrolysis prod. which contains chlorine in proportion of 0.1-0.5 wt. % in aq. soln. contg. hydroxide of alkaline earth metal or carbonate of alkali metal. Pref. (I) has a grain size of 5-40 μ m. and is used in form of dispersion dispersed into volatile solvent.

The pulverised cpd. has appropriate abrading power, can enable lustrous mirror finishing without using lubricant, does not cause scratches, improves the insulating power of the surface of light sensitive body, and does not cause adhesion and solidifying thereof during abrasion treatment.

Title Terms: ABRASION; CLEAN; ELECTROPHOTOGRAPHIC; LIGHT; SENSITIVE; BODY;

COMPRISE; FINE; POWDER; POLY; METHYL; SILSEQUIOXANE; AQUEOUS; SOLUTION;

CONTAIN; ALKALINE; EARTH; HYDROXIDE; ALKALI; CARBONATE

Index Terms/Additional Words: POLYSILOXANE; SURFACE

Derwent Class: A26; A82; G08; P84; S06

International Patent Class (Additional): G09K-003/14; G03G-021/00

File Segment: CPl; EPl; EndPl

(20)

4/5/2 (Item 2 from file: 352)
 DIALOG(R) File 352: Derwent MPI
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003200509

MP1 Acc No: 1981-61061D/198134
 polyEpoxy resin composn. used as sealant for semiconductors etc. -
 contains imidazole curing accelerator, silsesquioxane silicone modifying
 agent and phenolic resin curing agent

Patent Assignee: MATSUSHITA ELEC IND CO LTD (MATU)

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 56081333	A	19810703	JP 79158657	A	19791205	198134 B
JP 84052693	B	19841221				198504

Priority Applications (No Type Date): JP 79158657 A 19791205

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

JP 56081333 A 4

Abstract (Basic): JP 56081333 A

An epoxy resin composn. is composed of epoxy resin, curing agent, curing accelerator and modifying agent. The curing accelerator is at least 1 imidazole cpd. selected from 2-undecyl imidazole, 2-heptadecyl imidazole, 1-cyanoethyl 2-undecyl imidazole and 2,4-diamino 6-(2'-undecyl-imidazolyl)-(1)) ethyl-s-triazine. The modifying agent is alkyl aryl silsesquioxane series silicone cpd. of formula (I) (where R1-R6 are 6-9C aryl or 1-4C alkyl).

The curing agent is a phenolic resin and the curing accelerator is contained in an amt. of 0.5-6 pts. per 100 pts. curing agent. The modifying agent is contained in an amt. of 0.05-1.0 pts. per 100 pts. total composn.

The epoxy resin composn. has good preservation stability and is rapidly cured by heat and has less degradation of volume inherent resistance at high temp. and high humidity and is used as sealing resin of semiconductor device and other electrical circuits.

Title Terms: POLYEPOXIDE; RESIN; COMPOSITION; SEAL; SEMICONDUCTOR; CONTAIN; IMIDAZOLE; CURE; ACCELERATE; SILSESQUIOXANE; SILICONE; MODIFIED; AGENT; PHENOLIC; RESIN; CURE; AGENT

Derwent Class: A21; A85; E11; E13

International Patent Class (Additional): C08G-059/62; C08K-005/54;

C08L-063/00; H01L-023/90

File Segment: CPl

(21)

4/5/5 (Item 5 from file: 352)
DIALOG (R) File 352: Derwent WPI
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002051251

WPI Acc No: 1978-64311A/197836

Methyl polysiloxane prodn. - by dissolving methyl trichloro-silane in solvent in presence of amine, adding water and heating

Patent Assigned: JAPAN SYNTHETIC RUBBER CO LTD (JAPS)

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 53088099	A	19780803				197836 B
JP 85017214	B	19850501				198521

Priority Applications (No Type Date): JP 772316 A 19770114

Abstract (Basic): JP 53088099 A

Methyl polysiloxane of formula (I) with Mn 9,000-100,000 is produced by dissolving CH₃SiCl₃ in a mixed solvent of a ketone and an ether in the presence of an amine, adding water dropwise for hydrolysis and heating the mixt. for condensn. Also claimed is the prodn. of methyl polysiloxane with Mn 10,000-100,000 by adding to a methyl polysiloxane of formula (I), an ammonium salt as catalyst to effect hydrolysis for condensn. The mixed solvent is e.g. composed of NEK, diethyl ketone, etc. and diethyl ether dioxane, etc.. The ammonium salts are e.g. HCl salts of trimethylamine, diethylamine, sulphamic acid, etc..

Prod. is useful as a storage-stable thermosetting resin capable of providing heat-resistant resin prods. The methyl siloxane, when burned at >700 degrees C., shows the wt. residue rate of 88%, and produces ceramics material.

Title Terms: METHYL: POLYSILOXANE: PRODUCE: DISSOLVE: METHYL: TRI: CHLORO:
SILANE: SOLVENT: PRESENCE: AMINE: ADD: WATER: HEAT

Derwent Class: A26

International Patent Class (Additional): C08G-077/06

File Segment: CPI

(22)

5/5/5 (Item 5 from file: 352)
 DIALOG(R) File 352: Derwent WPI
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002261277

WPI Acc No: 1979-604798/197933

Heat-resistant silicone resin compen. - comprises methyl polysiloxane
 with ladder structure: inorganic filler and/or pigment: and curing
 catalyst

Patent Assignee: JAPAN SYNTHETIC RUBBER CO LTD (JAPS)

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 54083956	A	19790704				197933 B
JP 85017312	B	19850502				198522

Priority Applications (No Type Date): JP 77150603 A 19771216

Abstract (Basic): JP 54083956 A

The compen. comprises (a) methyl polysiloxane with Mn 9,000-100,000
 and ladder type structure of formula (I). (b) an inorganic filler
 and/or heat resistant pigment and (c) a curing catalyst.

The silicone resin compen. has excellent heat resistance and
 mechanical property of conventional silicone resins.

The compen. pref. comprises 100 pts.wt. of (a) 30-60 pts. wt. of
 (b) and 0.3-2 pts. wt. of (c). Component (a) is obtd. by hydrolysis and
 polycondensation of CH_3SiCl_3 . As component (b), diatomaceous earth,
 clay, glass beads, magnesium silicate, aluminium silicate, alumina,
 etc. are cited. Aluminium paste is asp. used. As component (c), an
 organic amine (such as ethanolanine or diethanolamine), a lead cpd.
 (such as lead oxide or lead carbonate), a tin cpd. (such as dibutyl tin
 dilaurate) or a quat. ammonium cpd. can be used.

Title Terms: HEAT: RESISTANCE: SILICONE: RESIN: COMPOSITION: COMPRISE:
 METHYL: POLYSILOXANE: LADDER: STRUCTURE: INORGANIC: FILL: PIGMENT: CURE:
 CATALYST

Derwent Class: A26

International Patent Class (Additional): C08K-003/08: C08L-083/D4

File Segment: CPI

(23)

5/5/4 (Item 4-From file: 352)
DIALOG(R) File 352:Derwent WPI
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002493743

WPI Acc No: 1980-11758C/198007

Related WPI Acc No: 1979-60480B

Heat curable silicone block polymer prodn. - by reacting
methyl-polysiloxane with chlorine-substd. methyl-polysiloxane in organic
solvent in presence of amine

Patent Assignee: JAPAN SYNTHETIC RUBBER CO LTD (JAPS)

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 55000761	A	19800107				198007 B
JP 85017335	B	19850502				198522

Priority Applications (No Type Date): JP 7928222 A 19780614; JP 77150604 A
19771216

Abstract (Basic): JP 55000761 A

Heat-curable silicone block polymer is produced by reacting (1)
methyl polysiloxane of ave. mol. wt. of 9000-10,000 with (2) Cl
(CH₃)₂SiO m(CH₃)₂SiCl (where m = 0-100 (0-20)) in organic solvent in
the presence of amines.

The block polymer has excellent adherence to glass, silicon,
aluminum and heat resistance and mechanical strength. When curing
catalysts are added to the block polymer, a film having flexibility and
excellent heat resistance and mechanical strength is obtd. Moldings of
paint compsns. are obtd. by blending the block polymer with organic
fillers or heat-resistant pigments.

The amine is pref. pyridine or triethylamine. Organic solvent is
pref. tetrahydrofuran or MEK.

Title Terms: HEAT: CURE: SILICONE: BLOCK: POLYMER: PRODUCE: REACT: METHYL:

POLYSILOXANE: CHLORINE: SUBSTITUTE: METHYL: POLYSILOXANE: ORGANIC:

SOLVENT: PRESENCE: AMINE

Derwent Class: A26: G03

International Patent Class (Additional): C08G-077/44

File Segment: CP1

(24)

5/5/1 (Item 1 from file: 352)
 DIALOG(R) File 352: Derwent WP1
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003973047

WPI Acc No: 1984-118591/198419

XRAM Acc No: C84-050261

XRPX Acc No: N84-087571

Silicone resin soln. prodn. - by mixing hydrolysis polycondensate of
 tetraalkoxy-silane with organic solvent and poly-silsesquioxane

Patent Assignee: FUJITSU LTD (FUJIT)

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 59058054	A	19840403	JP 62168272	A	19820929	198419 B
JP 86010496	B	19860329				198617

Priority Applications (No Type Date): JP 62168272 A 19820929

Patent Details:

Patent No	Kind	Ln	Pg	Main IPC	Filing Notes
JP 59058054	A		5		

Abstract (Basic): JP 59058054 A

Silicone resin soln. contg. below 10 ppm hydrogen halide is prepd.
 by mixing (a) hydrolysis polycondensate of tetraalkoxysilanes with (1)
 organic solvent having b.pt. above 110 deg.C and (3) polysilsesquioxane
 prepolymer, and treating the mixt. at below 5 mmHg.

Prof. (2) include n-butanol, n-hexanol and epichlorohydrin. Soln.
 of (1) contg. HCl is pref. reduced pressure-treated with the aid of
 silver nitrate esp. at below 40 deg.C, partic. below 28 deg.C and above
 5 deg.C.

0/0

Title Terms: SILICONE; RESIN; SOLUTION; PRODUCE; MIX; HYDROLYSIS;
 POLYCONDENSATION; TETRA; ALKOXY; SILANE; ORGANIC; SOLVENT; POLY;
 SILSESQUOXANE

Index Terms/Additional Words: SEMICONDUCTOR; INSULATE

Derwent Class: A26; A85; L03; U11

International Patent Class (Additional): C08L-083/06; C09D-003/82;

C09D-005/25; G11G-011/14; H01L-021/88; H01L-023/30

File Segment: C01; E01

(25)

5/5/2 (Item 2 from file: 352)
 DIALOG(R) File 352: Derwent WPI
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003506015

WPI Acc No: 1982-53994E/198226

Resin liquid compsn. contg. silanol-polysilsesquioxane resin mixt.,
 cellosolve(s) and butyl alcohol

Patent Assignee: FUJITSU LTD (FUIT)

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 57083563	A	19820525	JP 80158114	A	19801112	198226 B
JP 86018945	B	19860515				198624

Priority Applications (No Type Date): JP 80158114 A 19801112

Patent Details:

Patent No	Kind	Ln	Pg	Main IPC	Filing Notes
JP 57083563	A		3		

Abstract (Basic): JP 57083563 A

Resin compsn. contains (A) the resin comprising the mixt. of (a) polysilsesquioxane and (b) silanol opd. and (B) (1) at least one cellosolve type solvent i.e. methyl, ethyl and/or butyl cellosolve acetate or the mixt. of (1) and (2) butyl alcohol at below 80wt.% of (1).

Components (a) and (b) are pref. of formula $2R2O-(R1SiO1.5)n-2R2O$ (I) and $R3O-(Si(OR3)2)-OR3$ (II), respectively (where R1 is monovalent hydrocarbon op. e.g. $-CH3$, $-C2H5$; R2 and R3 are $C6H12m-1$ (m is 0 or above); n is a positive integer). Since (a) and (b) have different polarity, they tend to be sepd. mutually in the process of coating and solvent-evapn., and then the coat film has defects such as pinhole, projection, crawling and whitening. Components (a) and (b) dissolved in (B) stay dissolved state even at varied resin liq. concn. in the presence of solvent-evapn.

The present compsn. forms homogeneous coat film, being used as insulation resin and protective resin.

Title Terms: RESIN; LIQUID; COMPOSITION; CONTAIN; SILANOL; POLY;

SILSESQUOXANE; RESIN; MIXTURE; CELLOSOLVE; BUTYL; ALCOHOL

Index Terms/Additional Words: INSULATE; PROTECT; POLYSILOXANE

Derwent Class: A11; A26; A82; G02

International Patent Class (Additional): C08L-083/04; C09D-003/82

File Segment: OP1

(26)

5/5/3 (Item 3 from file: 352)
DIALOG(R) File 352:Derwent WPI
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003155995

WPI Acc No: 1981-165370/198110

Silicone resin block polymer prodn. - by reacting methylpolysiloxane with
organic silicon cpd. in presence of amine

Patent Assignee: JAPAN SYNTHETIC RUBBER CO LTD (JAPS)

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 56000827	A	19810107	JP 7974641	A	19790615	198110 B
JP 86055524	B	19861128				198652

Priority Applications (No Type Date): JP 7974641 A 19790615

Abstract (Basic): JP 56000827 A

In the prespn. of a silicone block polymer, a methylpolysiloxane of
a number average mol. wt. 10,000-100,000, and of formula (I) is reacted
with a compound of formula $X(R_2SiO)_mR_2SiX$ (where R is alkyl or aryl, X
is Cl, NH_2 , or alkoxy and m is 0-100) in the presence of an amine,
e.g., pyridine, triethylamine, etc., in an organic solvent e.g.,
benzene, toluene, tetrahydrofuran, methylisobutylketone, etc., at 50
deg. C for 20 hours.

The silicone block polymer has excellent adhesiveness, heat
resistance, mechanical strength (particularly tensile strength), and
flexibility. The silicone block polymer is used for forming a
heat-resistant insulating film on the surface of glass, silicone base
plate, etc., by heating the coated film. Also, a curing catalyst is
mixed with the silicone block polymer to obtain a flexible and
heat-resistant film. Inorganic filler or pigment is mixed with the
silicone block polymer to obtain moulding or paint compsns.

Title Terms: SILICONE; RESIN; BLOCK; POLYMER; PRODUCE; REACT; METHYL;
POLYSILOXANE; ORGANIC; SILICON; COMPOUND; PRESENCE; AMINE

Derwent Class: A26; A82; G02

International Patent Class (Additional): C08G-077/42

File Segment: CP1

(27)

6/5/2 (Item 2 from file: 352)
 DIALOG(R) File 352: Derwent WPI
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004670973

WPI Acc No: 1986-174315/198627

XRAM Acc No: C86-075181

Lower alkyl-polysesquioxane prodn. - by dissolving organic amine
 catalyst and lower alkyl trichloro-silane in organic solvent adding water
 etc.

Patent Assignee: FUJITSU LTD (FUJIT)

Inventor: FUKUYAMA S; MATSUURA A; MIYAGAWA M; NISHII K; YONEDA Y

Number of Countries: 006 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 61108628	A	19860527	JP 84228885	A	19841101	198627 B
JP 87016212	B	19870411				198718
KR 8800853	A	19880526				198843
KR 9005894	B	19900813				199142
EP 406911	B1	19930707	EP 85307905	A	19851031	199327
			EP 90114892	A	19851031	
DE 3587442	G	19930812	DE 3587442	A	19851031	199333
			EP 90114892	A	19851031	

Priority Applications (No Type Date): JP 84228885 A 19841101; JP 85104035 A
 19850517; JP 8563359 A 19850329

Cited Patents: EP 112168; EP 46695; EP 76656

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

JP 61108628 A 3

EP 406911 B1 E 12 C08G-077/06

Designated States (Regional): DE FR GB NL

DE 3587442 G C08G-077/06 Based on patent EP 406911

Abstract (Basic): JP 61108628 A

Formula I having wt. average molecular wt. of 10,000-1,000,000 are
 produced by dissolving (1) lower alkyltrichlorosilanes and (2) organic
 amine catalyst in (3) organic solvents at -20 to -50 deg.C, adding
 dropwise (4) water to the organic soln. prepd. at -20 to -50 deg.C
 under pressure with inert gases to hydrolyse and polycondense (1) and
 heating the system contg. the water layer formed by the addition of
 water under pressure with inert gases and thereby increasing the mol.
 wt. of the reaction prod. In (1) R is CH3 or C2H5.

ADVANTAGE - The polymers have good storage stability. The molecular
 wt. of the polymers is varied by changing the reaction temp. and time.

(3pp Dwg.No.0/0)

Title Terms: LOWER: ALKYL: POLY: SESQUI: SILOXANE: PRODUCE: DISSOLVE:
 ORGANIC: AMINE: CATALYST: LOWER: ALKYL: TRI: CHLORO: SILANE: ORGANIC:
 SOLVENT: ADD: WATER

Derwent Class: A26; A85; L03; U11; V04; X12

International Patent Class (Main): C08G-077/06

International Patent Class (Additional): H05K-003/02

File Segment: CPl: EP1

(29)

6/5/4 (Item 4 from file: 352)
 DIALOG(R) File 352: Derwent WPI
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003220032

WPI Acc No: 1981-80590D/198144

Liq. coating compsn. for forming thin film - comprises organo-silicone
 polymer having phenyl gp. and cyclic ether deriv. as solvent
 Patent Assignee: HITACHI CHEM CO LTD (HITB); HITACHI LTD (HITA)
 Number of Countries: 001 Number of Patents: 002

Patent Family:		Kind	Date	Applicat No	Kind	Date	Week
Patent No							
JP 56118465	A	19810917	JP 8021733	A	19800225	198144	B
JP 87017629	B	19870418				198719	

Priority Applications (No Type Data): JP 8021733 A 19800225

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 56118465	A		5		

Abstract (Basic): JP 56118465 A

Compsn. comprises ladder type organosilicone polymer with phenyl
 gp. with relative viscosity 1.1-3.0 (1% benzene soln., 30 deg.C) and
 solvent which contains at least one cpd. of formula (I) and (II) as
 main component, in the formula R: aromatic gp., cycloalkane ring, or
 heterocyclic ring; n is 3, 4, 5. The ratio of polymer to solvent
 0.5:99.5-20:80.

Thin film of the coating liq. compsn. is pref. formed by spinner
 process or printing process. The solvent is pref. 2-phenoxy
 tetrahydrofuran or 2-phenoxy tetrahydrofuran. As the ladder type
 organosilicone polymer, polyphenyl silsesquioxane, poly (m-chlorophenyl
 silsesquioxane), etc. are cited.

Thin film with good quality can be formed with good workability. The
 film can be used for orientation membrane for liq. crystal display
 element, high heat resistant insulation membrane for electronic parts,
 etc.

Title Terms: LIQUID; COATING; COMPOSITION; FORMING; THIN; FILM; COMPOSE;
 ORGANOSILICONE; POLYMER; PHENYL; GROUP; CYCLIC; ETHER; DERIVATIVE;
 SOLVENT

Index Terms/Additional Words: ORIENT; MEMBRANE; LIQUID; CRYSTAL; DISPLAY
 Derwent Class: A26; A82; G02; P42

International Patent Class (Additional): B05D-007/24; C09D-003/82;

H05K-003/00

File Segment: CPI; EngPI

(29)

6/5/1 (Item 1 from file: 352)
DIALOG(R) File 352:Derwent WPI
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00719662

WPI Acc No: 1987-196671/198728

XRAM Acc No: C87-082478

XRPX Acc No: N87-147106

Bubble memory device for electronic appts. - includes silicone resin
insulation film between conductor pattern layer and protect film of e.g.
polydialkoxo silane (J5 28.6.84)

Patent Assignee: FUJITSU LTD (FUJI)

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applcat No	Kind	Date	Week
JP 87028511	B	19870620	JP 82222078	A	19821220	198728 B
JP 59112487	A	19840628				198728

Priority Applications (No Type Date): JP 82222078 A 19821220

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 87028511	B		4		

Abstract (Basic): JP 87028511 B

Bubble memory device comprises a silicone resin insulation film
between wiring conductor pattern layers and silicone resin protect
film, at least one is made of polydialkoxo silane or mixt. of this
silane with polysilsesquioxane. (J59112487-A)

O/6

Title Terms: BUBBLE: MEMORY: DEVICE: ELECTRONIC: APPARATUS: SILICONE: RESIN
; INSULATE: FILM: CONDUCTOR: PATTERN: LAYER: PROTECT: FILM: POLY: DI:
ALKOXY: SILANE

Derwent Class: A26: A85: L03

International Patent Class (Additional): G11C-011/14: G11C-019/08

File Segment: CFI

30

6/5/5 (Item 5 from file: 352)
DIALOG(R) File 352:Derwent WPI
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003154291

WPI Acc No: 1981-14833D/198109

Mouldable impact-resistant thermoplastic resin compsn. - comprises ABS resin and aliphatic alcohol, ester or epoxy cpd. or polysiloxane

Patent Assignee: JAPAN SYNTHETIC RUBBER CO LTD (JAPS)

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 55165942	A	19801224	JP 7973086	A	19790612	198109 B
JP 87034069	B	19870724				198733

Priority Applications (No Type Date): JP 7973086 A 19790612

Abstract (Basic): JP 55165942 A

Compsn. contains (A) 100 pts.wt. of thermoplastic resin comprising the ABS resin consisting of (a) the graft polymer having a graft rate of 20-50% prepd. by graft-polymerising the mixt. of (1) aromatic vinyl monomer and (2) vinylcyan monomer onto (3) conjugated diene rubbery polymer contg. below 80wt.% of gel and having an average grain dia. of above 0.2 microns (or the mixt. of Component (a) and (b) the copolymer of aromatic vinyl monomer and vinyl-cyan monomer, and having a limiting viscosity of 0.35-0.47 dl/g in resin component, and (b) the copolymer of rubber component: and (B) (1) 0.1-1.0 pts.wt. of one or more cpds. selected from (1) 8-22C aliphatic alcohols, (2) alcohol esters of phthalic acid, (3) alcohol esters of 16-18C straight chain estd. fatty acids and (4) epoxy cpd. of 16-18C straight chain estd. fatty acid alkyl esters or (2) 0.001-0.05 pts.wt. of polysiloxane.

The compsn. have excellent mouldability, impact resistance and partial breaking property.

Title Terms: MOULD: IMPACT: RESISTANCE: THERMOPLASTIC: RESIN: COMPOSITION;
COMPRISE: RESIN: ALIPHATIC: ALCOHOL: ESTER: EPOXY: COMPOUND: POLYSILOXANE
Index Terms/Additional Words: POLYACRYLONITRILE: POLYBUTADIENE: POLYSTYRENE
Derwent Class: A12
International Patent Class (Additional): C08K-005/05; C08L-055/02;
C08L-083/04
File Segment: CPI

(31)

6/5/3 (Item 3 from file: 352)
 DIALOG(R)File 352:Derwent WPI
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003446565

WPI Acc No: 1982-03064E/198202

Silicone resin prepn. - by catalytically condensing oligomer obtd. by
 cohydrolysing trialkoxy silane cpd.

Patent Assignee: JAPAN SYNTHETIC RUBBER CO LTD (JAPS)

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 56151731	A	19811124	JP 8054230	A	19800425	198202 B
JP 88003893	B	19880126				198807

Priority Applications (No Type Date): JP 8054230 A 19800425

Patent Details:

Patent No	Kind	Lang	Pg	Main IPC	Filing Notes
JP 56151731	A				

Abstract (Basic): JP 56151731 A

Oligomer obtd. by co-hydrolysis of trialkoxysilane R' Si (OR)2 having
 organic gp. R' capable of polymerising with phenyl trialkoxy silane
 C6H5 Si (OR)3 (where R is 1-4C alkyl) is further condensed using a basic
 catalyst to mfr. the silicone resin.

Pref. R' is vinyl or (meth)acryloxy alkyl gp.. (CH2=CR'' COOR' "-)
 (where R'' is H or CH3, R'' is 1-6C alkylene or arylene).

The basic catalyst includes alkali metal hydroxide, e.g., NaOH,
 KOH, CaOH, ammonium or phosphonium hydroxide, e.g. (n-Bu)4POH. The
 co-hydrolysis is carried out by adding phenyl trialkoxysilane to a
 mixed system composed of organic solvent, a small amt. of acid
 catalyst, e.g., HCl, H2SO4, HNO3, fluorosulphuric acid, trifluoro
 methane sulphonic acid and water. Temp. of the reaction is room temp.
 to reflux temp. of the solvent used.

The product is an organic solvent-soluble polysilsesquioxane having
 polymerisable organic side chain gp.

Title Terms: SILICONE; RESIN; PREPARATION; CATALYST; CONDENSATION; OLIGOMER

: OBTAIN; CO; HYDROLYSIS; TRI; ALKOXY; SILANE; COMPOUND

Derwent Class: A26

International Patent Class (Additional): C08G-077/06

File Segment: 001

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PATENT ABSTRACTS OF JAPAN

(37)

(11)Publication number : 57-141641

(43)Date of publication of application : 02.09.1982

JP 80647711

(51)Int.Cl.

G03C 1/72

G03C 5/00

G03F 1/00

H01L 21/30

(21)Application number : 56-027481

(71)Applicant : FUJITSU LTD

(22)Date of filing : 26.02.1981

(72)Inventor : YONEDA YASUHIRO

KITAMURA TATEO

NAITO JIRO

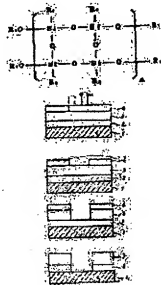
KITAKOJI TOSHISUKE

(54) FORMATION OF POSITIVE PATTERN

(57)Abstract:

PURPOSE: To easily dry etch a layer to be worked by using a resist prepared by mixing a positive type resist material with a specified polysilsesquioxane.

CONSTITUTION: A substrate 1 having a formed layer 2 of SiO₂ or the like to be worked is successively coated with the 1st resist layer 3 of polystyrene or the like with high etching resistance and the 2nd resist layer 4 having 0.3W0.7µm thickness and consisting of a positive type resist and a polysilsesquioxane represented by the formula (where n is the degree of polymer; R1 is H, phenyl, 1W4C alkyl or CN; and R2 is phenyl, 1W4C alkyl or CN). The layer 4 is exposed to energy beams such as electron beams, X-rays or ion beams and developed, and the disclosed part of the layer 3 is removed by etching in oxygen plasma to form a pattern. The disclosed part of the layer 2 is then removed by etching with an etchant to form a positive pattern.



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[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

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[Date of requesting appeal against examiner's
decision of rejection].

[Date of extinction of right]

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HEAT-RESISTANT PHOTO-POLYMER COMPOSITION AND PRODUCTION OF INTEGRATED CIRCUIT BY SING SAME

Patent number: JP2038427
Publication date: 1990-02-07
Inventor: FUKUYAMA SHUNICHI; others: 01
Applicant: FUJITSU LTD
Classification:
- **International:** C08G77/60; H01L21/312
- **European:**
Application number: JP19880188906 19880728
Priority number(s):

Abstract of JP2038427

PURPOSE: To obtain a resin composition having a leveling function, does not crack even when used in a high-temperature oxygen atmosphere, is sensitive to ultraviolet rays or an ionizing radiation, and having a structure represented by a specified formula.

CONSTITUTION: An organosilicon polymer of a weight-average MW of 3000-5000000, represented by formula I (wherein R1 is a vinyl, an allyl, a lower alkoxy or an aryl; R2 is an arylene; and n is 10-50000), wherein at least 5% of R1 groups are vinyls or allyls. The polymer of formula I is a polymer or mixture of organosilicon materials of formulas II and III. This polymer has a leveling function, does not crack even when used in a high-temperature oxygen atmosphere and is sensitive to ultraviolet rays or an ionizing radiation, so that it has such excellent performances that it is freed of a problem that the electrical properties, such as an insulation resistance value, of the resin is lowered because a photosensitizer, a polymerization initiator, etc., must be added to a conventional resin in order to impart photosensitivity thereto.

Data supplied from the esp@cenet database - Patent Abstracts of Japan

PRODUCTION OF MOLECULAR COMPOSITE MATERIAL OF ZIRCONIUM-CONTAINING ORGANOSILOXANE COMPOSITION

Patent number: JP1016868
Publication date: 1989-01-20
Inventor: YAMADA KINJI; others: 02
Applicant: JAPAN SYNTHETIC RUBBER CO LTD
Classification:
- International: C08L83/04; C08K5/05; C09D3/82
- european:
Application number: JP19870172700 19870710
Priority number(s):

Abstract of JP1016868

PURPOSE: To produce the title composition with high storage stability, especially resistance to organic chemicals and weather, giving coating films of high hardness, by adding specific amounts of a specific organopolysiloxane and a hydrolyzed zirconium compound to an organosilane condensate.

CONSTITUTION: (A) 100pts.wt., calculated as organosilane, of an organosilane condensate, of formula I (R<1> is 1-8C organic group; R<2> is 1-5C alkyl) for example, methyl trimethoxy silane condensate are mixed with (B) 10-500pts.wt. of an organopolysiloxane having a structural unit of formula II (R<3> is 1-8C organic group; a is 1.1-1.8) and 1 or more -OX group (X is H or the like) bonding to silicon atom, and (C) 0.05-20pts.wt., calculated as zirconium atom, of a hydrolysate or partial hydrolysate of a zirconium compound.

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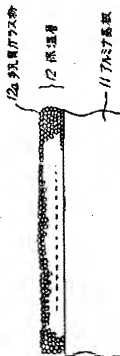
THERMAL HEAD SUBSTRATE AND ITS MANUFACTURE

Patent number: JP1038256
Publication date: 1989-02-08
Inventor: NAKAMORI TOMOHIRO
Applicant: OKI ELECTRIC IND CO LTD
Classification:
- International: B41J3/20
- european:
Application number: JP19870194001 19870803
Priority number(s):

Abstract of JP1038256

PURPOSE: To enable a heat insulating layer of a good characteristic to be simply formed by greatly improving heat separating and thermal tailing, by a method wherein a silicone oligomer is dissolved in an organic solvent, a porous glass powder is dispersed in this solution to a paste state, which is applied on an alumina substrate, and the heat insulating layer is formed by heating.

CONSTITUTION: A porous glass powder of not more than 0.1µm in average particle size and 40-200nm in average pore diameter is dispersed in toluene in an ultrasonic bath, and is joined by silicone oligomer to be prepared to a paste state. It is applied on an alumina substrate 11 by a spin coating process, is baked in three stages such as, for instance, at 80 deg.C for 30min, at 150 deg.C for 60min, and at 200 deg.C for 30min, and the silicone oligomer is polymerized. This procedure is repeated five times, and a porous glass powder and silicone polymer layer 12 is formed.



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PRODUCTION OF POLYSILOXANE-CONTAINING COPOLYMER

Patent number: JP1056710
Publication date: 1989-03-03
Inventor: KAWADA TAKASHI; others: 03
Applicant: JAPAN SYNTHETIC RUBBER CO LTD
Classification:
- International: C08F210/02; C08F4/64
- European:
Application number: JP19870212270 19870826
Priority number(s):

Abstract of JP1056710

PURPOSE: To obtain the titled copolymer with high heat resistance (≥ 150 deg.C) by copolymerization, using a Ziegler-Natta catalyst, between an unsaturated carbon linkage-contg. polysiloxane, ethylene and specific α -olefin.

CONSTITUTION: The objective copolymer containing 0.1-50wt.% of polysiloxane with a molecular weight of pref. 2,000-500,000 on a PS basis, can be obtained by copolymerization, using a Ziegler-Natta catalyst, between (A) a polysiloxane having at least one unsaturated carbon linkage (pref. C=C double bond-terminated compound of formula), (B) ethylene, and (C) a 3-20C α -olefin (pref. propylene) pref. in the weight ratio: A/B/C=1-30/25-80/75/-20.

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PATTERN FORMING MATERIAL

Patent number: JP1076046
Publication date: 1989-03-22
Inventor: WATANABE KEIJI; others: 04
Applicant: FUJITSU LTD
Classification:
- international: G03C1/71; G03F7/10; H01L21/30
- european:
Application number: JP19870232468 19870918
Priority number(s):

Abstract of JP1076046

PURPOSE: To obtain an upper layer material for a two layered structure having high sensitivity, resolution, and resistance to oxygen plasma by constituting the upper layer material of a specified three-dimensional chiral siloxane.

CONSTITUTION: The title pattern forming material consists of a three-dimensional chiral siloxane expressed by formula I. In formula I, R is a 1-4C alkyl group, 2-3C alkenyl group, cyclohexyl group, or a phenyl group; n is 4, 6, 8, 10 or 12. Polysilsesquioxane is utilized for a material for electron beam negative resist having two layered structure permitting formation of a pattern having always submicron dimension on a substrate having large difference of level. By this method, an upper layer material for a two layered structure resist having high sensitivity, resolution, and resistance to oxygen plasma is obtd.

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TRANSPARENT ELASTOMER COMPOSITION

Patent number: JP1110546
Publication date: 1989-04-27
Inventor: KAWADA TAKASHI; others: 02
Applicant: JAPAN SYNTHETIC RUBBER CO LTD
Classification:
- international: C08L23/00; C08K13/00
- european:
Application number: JP19870266857 19871022
Priority number(s):

Abstract of JP1110546

PURPOSE: To obtain a transparent elastomer composition having excellent flexibility and heat resistance, comprising an ethylene-alpha-olefin copolymer containing a polysiloxane component, fumed silica, silane coupling agent and organic peroxide.

CONSTITUTION: A composition comprising (A) 100pts.wt. ethylene-alpha-olefin (- nonconjugated diene) copolymer containing a polysiloxane component in the molecule obtained by copolymerizing ethylene with an alpha-olefin and optionally a nonconjugated diene by using an unsaturated silane compound containing one or more bonds shown by the formula Si-X (X is Cl or Br) and a Ziegler-Natta catalyst and further reacting the copolymer with an OH-containing polysiloxane, (B) 10-80pts.wt. fumed silica having $\leq 25\mu\text{m}$ average particle diameter, (C) 0.1-10pts.wt. silane coupling agent (preferably alkoxysilane coupling agent) and (D) 1-5pts.wt. organic peroxide.

Data supplied from the esp@cenet database - Patent Abstracts of Japan

COMPOSITION FOR COATING

Patent number: JP1115966
Publication date: 1989-05-09
Inventor: HANAOKA HIDEYUKI; others: 02
Applicant: JAPAN SYNTHETIC RUBBER CO LTD
Classification:
- International: C09D3/82
- european:
Application number: JP19870271824 19871029
Priority number(s):

Abstract of JP1115966

PURPOSE: To obtain the subject composition curable at low temperature, providing a coating film having excellent alkali resistance and water resistance, containing an alkoxysilane, specific vinyl resin and reactive functional organopolysiloxane.

CONSTITUTION: (A) 10-80pts.wt. calculated as alkoxysilane of an alkoxysilane shown by the formula $R_nSi(OR')_{4-n}$ (R is 1-8C organic group; R' is 1-5C alkyl or 1-4C acyl; n is 0 or 1), hydrolyzate and/or partial condensate thereof is blended with (B) 10-80pts.wt. vinyl resin containing a silyl group containing a silicon atom bonded to hydrolyzable group and (C) 10-80pts.wt. organopolysiloxane containing a reactive functional group in such a way that the total amount of the components A-C is 100pts.wt. to give the aimed composition. Methydimethoxysilane is preferable as the composition A.

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PREPARATION OF POLYAMIDE-POLYSILOXANE BLOCK COPOLYMER

Patent number: JP1168718
Publication date: 1989-07-04
Inventor: IMAI YOSHIO; others: 03
Applicant: JAPAN SYNTHETIC RUBBER CO LTD
Classification:
- International: C08G18/61
- european:
Application number: JP19870327159 19871225
Priority number(s):

Abstract of JP1168718

PURPOSE: To obtain industrially advantageously a polyamide-polysiloxane block copolymer having excellent mechanical characteristics, heat resistance, solvent resistance, etc., by copolymerizing a diisocyanate, a dicarboxylic acid and a specified polysiloxane.





CONSTITUTION: One or more of diisocyanates, one or more of dicarboxylic acids and a polysiloxane having either carboxylic groups, hydroxyl groups or amino groups on its both ends are copolymerized. The copolymerization reaction is preferably carried out by either (a) a one-step polymerization wherein the diisocyanate component, the dicarboxylic acid component and the polysiloxane component are simultaneously reacted, or (b) a two-step polymerization wherein the dicarboxylic acid component and excess diisocyanate component are reacted and, after this reaction is substantially completed, the polysiloxane component is reacted therewith.

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SURFACE-TREATED POLYMETHYLSILSESQUIOXANE POWDER

Patent number: JP1185367
Publication date: 1989-07-24
Inventor: SAITO KENJI; others: 01
Applicant: TOSHIBA SILICONE CO LTD
Classification:
- International: C08L83/04; C08L101/00; C09K3/18
- european:
Application number: JP19880007018 19880118
Priority number(s):

Also published as:

 EP0326810 (A2)
 US4895914 (A1)
 EP0326810 (A3)
 EP0326810 (B1)

Abstract of JP1185367

PURPOSE: To obtain the title powder of excellent water repellency, by surface- treating a polymethylsilsesquioxane powder with a specified organosilicon compound.

CONSTITUTION: A polymethylsilsesquioxane powder (A) which has an independent substantially exactly spherical form, a mean particle diameter of 0.1-20µm and such a particle diameter distribution that at least 80% of the particles fall within the range of a mean particle diameter + or -30% is surface-treated with an organosilicon compound (B) of the formula [wherein R is an unsubstituted monovalent hydrocarbon group, a is 1-2, Z is H, a halogen, OH, -OR', -NR'X, -ONR'Z or -OOCR' when a is 1, and is -O-, -N(X)- or -S- when a is 2, R' is a 1-4C alkyl, and X is H or R'], e.g., hexamethyldisilazane.

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MOLECULAR WEIGHT FRACTIONATING METHOD FOR HIGH MOLECULAR COMPOUND

Patent number: JP1203013
Publication date: 1989-08-15
Inventor: OIKAWA AKIRA; others: 01
Applicant: FUJITSU LTD
Classification:
- International: B01D37/02; C08F6/12
- european:
Application number: JP19880027216 19880208
Priority number(s):

Abstract of JP1203013

PURPOSE: To fractionate by molecular weight quickly and accurately by filtering and separating a low molecular weight component into filtrate, dissolving a mixture of a filter aid remaining on a filter medium and a high molecular content into given solvent and then filtering.

CONSTITUTION: A filter aid is added into a solution containing a component of different molecular weight, agitated and mixed, and then filtered to operate the low molecular weight component into filtrate. Then, a mixture of a filter aid remaining on the filter medium and a high molecular weight component is put into a solvent to be able to dissolve the high molecular weight component, and the high molecular weight component is dissolved. Then, filtration is carried out again to obtain a high molecular weight component in the filtrate. Thus, molecular weight fractionation can be carried out quickly and accurately. The mixing volume of the filter aid to the solution should be the volume to cover completely the surface of the filter medium.

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RESIST COMPOSITION

Patent number: JP1204043
Publication date: 1989-08-16
Inventor: SHIBA SHOJI; others: 03
Applicant: FUJITSU LTD
Classification:
- **International:** G03C1/71; G03C1/00; H01L21/30
- **European:**
Application number: JP19880027403 19880210
Priority number(s):

Abstract of JP1204043





PURPOSE: To form a fine pattern of the title composition by dissolving a specified silylated polyorganosilasesquioxane and a benzophenone derivative in an org. solvent or a ketone solvent. **CONSTITUTION:** The upper layer resist material of a resist having two layers structure is composed of a composition obtd. by dissolving the silylated polyorganosilasesquioxane shown by formula I and the tetra(alkylperoxycarbonyl) benzophenone shown by formula II such as preferably, 3,3',4,4'-tetra(t-butylperoxycarbonyl)benzophenone in the aromatic solvent (such as toluene or xylene), etc., or the ketone solvent (such as methyl isobutyl ketone, etc.). In formula I, (n) is an integer of 10-100, R is alkenyl group (such as -CH=CH₂ or -CH₂CH=CH₂ group, etc.). In formula II, R' is 1-4C a lower alkyl group such as preferably, t-butyl group. Thus, the fine pattern which has high sensitivity and a submicron order can be formed by exposing the resist composition with Deep-UV rays.

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METHOD FOR FORMING CERAMIC COATING ON SUBSTRATE

Patent number: JP1204432
Publication date: 1989-08-17
Inventor: HALUSKA LOREN A; MICHAEL KEITH W; TARHAY
LEO
Applicant: DOW CORNING CORP
Classification:
- International: H01L21/314; C04B41/87; H05K3/28
- european:
Application number: JP19880320735 19881221
Priority number(s):

Also published as:

 EP0323186 (A2)
 US4849296 (A1)
 EP0323186 (A3)
 EP0323186 (B1)

Abstract of JP1204432

PURPOSE: To enforce protection of a substrate surface by applying a solution containing a mixture of hydrogen silsesquioxane resin and metal oxide precursor of zirconium, aluminum and/or titanium on a substrate surface and thermally processing it in ammonium atmosphere, for inversion to nitriding coating.
CONSTITUTION: A flowable solution of a mixture, containing a metal oxide precursor selected out of the group comprising hydrogen silsesquioxane resin and alkoxy compound and acyloxy compound of aluminum, titanium and zirconium, where weight ratio as a metal oxide of the metal oxide precursor is about 0.1-30%, is applied on a substrate. Then, the resin solution is dried and a pre-ceramic coating is stuck to the substrate, and the substrate is heated to a temperature substantially enough to generate a ceramic coating in ammonium atmosphere. Thus, a ceramic coating for protecting the surface of such substrate as an electronic device is formed.

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ELECTROPHOTOGRAPHIC SENSITIVE BODY

Patent number: JP1217352
Publication date: 1989-08-30
Inventor: SARUWATARI NORIO; others: 04
Applicant: FUJITSU LTD
Classification:
- international: G03G5/05
- european:
Application number: JP19880043221 19880225
Priority number(s):

Abstract of JP1217352

PURPOSE: To enhance mechanical strength and abrasion resistance of a photosensitive body and to improve printing resistance by using a specified lower alkyl polysilsesquioxane heat hardened as a binder resin.

CONSTITUTION: The photoconductive layer formed on a conductive substrate contains a photoconductive material and a binder resin obtained by heat hardening the lower alkylpolysilsesquioxane having a weight average molecular weight of $10^{<3>}$ - $10^{<7>}$ represented by formula I in which each of R1 and R2 is methyl or ethyl, thus permitting the obtained photoconductive layer to be enhanced in surface hardness, to prevent abrasion due to severe cleaning conditions in the electrophotographic process and frequent contacts with a magnetic brush developer, and to have superior durability.

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POLYORGANOSILSESQUIOXANE, ITS PRODUCTION AND PATTERN FORMING MATERIAL

Patent number: JP1308429
Publication date: 1989-12-13
Inventor: WATABE KEIJI; others: 03
Applicant: FUJITSU LTD
Classification:
- international: C08G77/04; C08G77/06; G03C1/71
- european:
Application number: JP19880040714 19880225
Priority number(s):

Abstract of JP1308429

PURPOSE: To obtain polyorganosilsesquioxane excellent in sensitivity, resolution and oxygen plasma resistance and suitable as a pattern forming material for resists, by hydrolyzing a specified organosilicon compound and condensing the product through dehydration.

CONSTITUTION: An organosilicon compound of formula I (wherein R<1> and R<2> are each a 1-5 C alkyl or a 2-6 C alkylene), e.g., 1,1,3,3-tetrachloro-1-methyl-3-vinylsiloxane, is hydrolyzed. The obtained compound of formula II is condensed through dehydration to obtain a polyorganosilsesquioxane of formula III (wherein n is 10-100,000), e.g., a compound of formula IV. A pattern forming material comprising the obtained polyorganosilsesquioxane has resist characteristics which do not vary in each synthesis run and can be desirably used as, especially, an upper resist of a two-layer structure resist.

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